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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,171	02/22/2005	Freddy Snijder	NL 020801	7660
24737 7590 11/26/2007 PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510				
			EXAMINER ALLISON, ANDRAE S	
			ART UNIT 2624	PAPER NUMBER
			MAIL DATE 11/26/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/525,171

Applicant(s)

SNIJDER ET AL.

Examiner

Andrae S. Allison

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on February 22, 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 February 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date February 22, 2005.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to because:

Figures 2, 4 and 5 are objected to because the rectangular boxes should be labeled in text. For example, box 202 in Fig 2 should be labeled extraction unit or means and box 204 should first determining unit or means. The numbering such as 202 and 204 can be labeled outside the boxes.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

### **Content of Specification**

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.
- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) The Names Of The Parties To A Joint Research Agreement: See 37 CFR 1.71(g).
- (e) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.
- (f) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
  - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
  - (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are

solved by the applicant's invention. This item may also be titled "Background Art."

- (g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.
- (h) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (i) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (j) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (k) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the

applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).

- (l) Sequence Listing. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-8, 10 and 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peker (US Patent No.: US 7,103,222) in view of Tovinkere et al (US Patent No.: 6,678,635).

As to independent claim 1, Peker discloses the method of detection of a content property in a data stream on basis of low-level features (discovery pattern in unknown multidimensional space (column 3, lines 58-62) using low level features (column 4, lines 28-32)), the method comprising: determining a behavior feature from a sequence of the low-level features (see column 5, lines 20-30, where windows are used to capture behavior feature); determining to which cluster from a set of predetermined clusters of

behavior features within a behavior feature space the determined behavior feature belongs (see column 5, lines 30-55); determining a confidence level of a content property presence on basis of the determined behavior feature and the determined cluster; and detecting the content property on basis of the determined confidence level of the content property presence (see column 8, lines 13-55). However, Peker does not expressly disclose determining a confidence level of a content property presence on basis of the determined behavior feature and the determined cluster. Tovinkere discloses a method for detecting semantic events in temporal data (column 1, lines 16-17) that includes the step of disclose determining a confidence level of a content property presence on basis of the determined behavior feature and the determined cluster (column 8, lines 1-9). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have combined the teaching of Peker and Tovinkere to identify meaningful events from temporal data based on events models (column 1, lines 14-20) by measuring the confidence value of the identified event (column 8, lines 1-10).

As to claim 2, Peker teaches the method of detection of a content property, wherein the data stream corresponds to a series of video images (101, see Fig 1).

As to claim 3, Peker teaches the method of detection of a content property, wherein the determined behavior feature comprises a first mean (110, see Fig 1) of values of a first one of the low-level features in the sequence.



As to claim 4, Peker teaches the method of detection of a content property, wherein the determined behavior feature comprises a second mean (110, see Fig 1) of values of a second one of the low-level features in the sequence.

As to claim 5, note the discussion above, Tovinkere teaches the method of detection of a content property, wherein the confidence level of the content property presence is determined on basis of a model of the determined cluster of behavior features (see column 3, lines 39-49).

As to claim 6, note the discussion above, Tovinkere the method of detection of a content property, wherein the model of the determined cluster of behavior features is a linear model (see column 3, liens 50-61).

As to claim 7, note the discussion above, Tovinkere teaches the method of detection of a content property, wherein the confidence level of the content property presence is determined with a neural network (870, see Fig 8).

As to claim 8, Peker teaches the method of detection of a content property, wherein detecting the content property is done by comparing the confidence level of the content property presence with a predetermined threshold (see column 6, lines 45-50).

As to claim 10, Peker teaches the method of detection of a content property, further comprising determining which of the video images corresponds to a part of the series of video images having the content property (see column 8, lines 23-36).

As to claim 12, Peker teaches the method of detection of a content property, further comprising: determining to which further cluster from the set of predetermined clusters of behavior features within the behavior feature space (300) the determined behavior feature belongs; and detecting a further content property on basis of the further determined confidence level of the further content property presence (note that the process is recursive, see Fig 1). Note the discussion above, Tovinkere teaches determining a further confidence level of a further content property presence on basis of the determined behavior feature and the further determined cluster (see column 8, lines 1-9).

As to independent claim 13, Peker teaches a unit (see fig 1) for detecting a content property in a data stream on basis of low-level features, the unit comprising: first determining means (110, see fig 1) for determining a behavior feature from a sequence of the low-level features; second determining means (150, see Fig 1) for determining to which cluster from a set of predetermined clusters of behavior features within a behavior feature space the determined behavior feature belongs; and detecting means (172, see Fig 1) for detecting the content property on basis of the determined confidence level of the content property presence. However, Peker does not expressly disclose third

determining means for determining a confidence level of a content property presence on basis of the determined behavior feature and the determined cluster. Tovinkere discloses a system for detecting semantic events in temporal data disclose which includes a third determining means (120, see Fig 2) for determining a confidence level of a content property presence on basis of the determined behavior feature and the determined cluster. Thus the combination of Peker and Tovinkere would meet the limitation of this claim as discussed in claim 1 above.

As to claim 14, Peker teaches the image processing apparatus comprising: receiving means (102, see Fig 1) for receiving a data stream representing a sequence of video images; a unit for detecting a content property in the sequence of video images on basis of low-level features as claimed in claim 13; and an image processing unit being controlled by the unit for detecting a content property on basis of the content property.

As to claim 15, note the discussion above, Tovinkere teaches an image processing apparatus, wherein the image processing unit comprises a storage device (660, see Fig 6).

As to claim 16, neither Peker or Tovinkere teach an image processing apparatus, wherein the image processing unit comprises a video image compression device. However, it would have been obvious to include a video image compression device in

the system of Peker to compressed the video images, thus reducing the storage space requirement for the video images (OFFICIAL NOTICE).

As to claim 17, Peker teach an audio processing apparatus comprising: receiving means for receiving a data stream representing audio; a unit for detecting a content property in the audio on basis of low-level features; and an audio processing unit being controlled by the unit for detecting a content property, on basis of the content property (note that audio data can be used, column 4, lines 29-38).

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Peker (US Patent No.: US 7,103,222) in view of Tovinkere et al (US Patent No.: 6,678,635) further in view of Sun et al (US Patent No.: 6,272,250).

As to claim 9, Peker does not expressly teach the method of detection of a content property, further comprising outlier filtering by means of comparing the confidence level of the content property presence with a further confidence level corresponding to a further behavior feature. Sun teaches a method for clustering color data (column 1, lines 6-7) that includes the step of outlier filtering by means of comparing the confidence level of the content property presence with a further confidence level corresponding to a further behavior feature (see column 5, lines 40-55).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have combined the teaching of Peker as modified by Tovinkere and

Sun to clearly identify clustered by checking the quality of each cluster and removing clustered that are considered outliers, which are clusters having less than a predetermined number of input vectors (column 5, lines 40-55)

6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Peker (US Patent No.: US 7,103,222) in view of Tovinkere et al (US Patent No.: 6,678,635) further in view of McGee et al (US Patent No.: 7,110,047).

As to claim 11, Peker does not teach the method of detection of a content property, wherein data from an EPG is applied for the detection of the content property. McGee teaches a method for detecting scene change (column 1, lines 10-13) wherein data from an EPG is applied for the detection of the content property (column 2, lines 23-26). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have combined the teaching of Peker as modified by Tovinkere and McGee to determine thresholds for detecting significant scenes based on a video category which is provided by electronic program guides (column 2, lines 53-28).

### ***Conclusion***

The prior art made part of the record and not relied upon is considered pertinent to applicant's disclosure.

Sanker (US Patent No.: 7,120,300) is cited to teach a method for finding representative vectors in a class of vector spaces.

Liou et al (US Patent No.: 6,278,446) is cited to teach a system for interactive organization and browsing of video.

Jasinski et al (US Patent No.: 7,177,470) is cited to teach a method and system for detecting uniform color segments.

Foot et al (US Patent No.: 6,751,354) is cited to teach techniques for classifying video frames using statistical models of transform coefficients.

Qian et al (US Patent No.: 6,721,454) is cited to teach a method for automatic extraction of semantically significant events from video.

Cabasson et al (US Patent No.: 6,956,904) is cited to teach a method for summarizing a video first detects audio peaks in a sub-sampled audio signal of the video.

Dzhong et al (NPL document titled: "Clustering Methods for Video Browsing and Annotation") is cited to teach clustering methods.

Pons-Porrata et al (NPL document titled: "Detecting Events and Topics by Using Temporal References") is cited to teach an incremental clustering algorithm for event detection.

Kiranyaz et al (NPL document titled: "Unsupervised Scene Change Detection Techniques In Feature Domain Via Clustering And Elimination") is cited to teach techniques for automated scene change detection.

### ***Inquires***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrae S. Allison whose telephone number is (571) 270-1052. The examiner can normally be reached on Monday-Friday, 8:00 am - 5:00 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Meta can be reached on (571) 272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

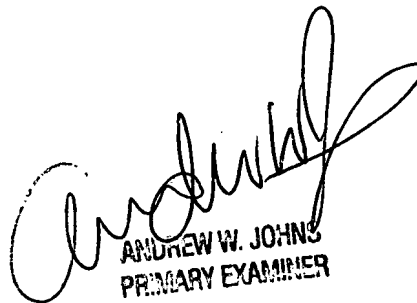
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Andrae Allison

November 15, 2007

AA

  
ANDREW W. JOHNS  
PRIMARY EXAMINER